

FiTech[®]
Fuel Injection

INSTRUCTION MANUAL

Universal Four Barrel 4150 Throttle Body
30032 Black MAP **30033 Brilliant MAP**
30034 Black TMAP **30035 Brilliant TMAP**



WARNING: Cancer and Reproductive Harm www.P65Warnings.ca.gov

For technical assistance with your FiTech product, call 951-340-2624 or go online to www.fitechefi.com under "Support".

Emissions Status: FiTech's Universal Four Barrel 4150 Throttle Body is not CARB (California Air Resources Board) approved for use on emission controlled vehicles. This unit is designed to be a add-on accessory to any aftermarket EFI based engine being retrofit into older vehicles that do not require emission controls (pre-1976). Check your particular state regulations for clarity to ensure no emission laws are being violated with the install of this system.

General Details and Dimensions

FiTech's Dry-Flow (Injector-less) Universal Four Barrel 4150 Throttle Body is designed to fit onto any 4150 (square bore) intake manifold. This throttle body is offered in a number of sensor and finish configurations depending on the exact part number purchased.

30032 Black MAP	-Black finish throttle body with TPS, IAC, 3 Bar MAP, threaded IAT sensors installed.
30033 Brilliant MAP	-Bright brilliant finish throttle body with TPS, IAC, 3 Bar MAP, threaded IAT sensors installed.
30034 Black TMAP	-Black finish throttle body with TPS, IAC, 3 Bar TMAP, sensors and IAT threaded NPT plug
30035 Brilliant TMAP	-Bright brilliant finish throttle body with TPS, IAC, 3 Bar TMAP, sensors and IAT threaded NPT plug

Replacement Items:

All sensors are typical readily available sensors from most parts stores:

TPS	- FiTech #60022 or AC Delco# 213-895
IAC	- FiTech #70050-13 or AC Delco 17113598
3 Bar MAP	- FiTech #70050-10 or Bosch 0261230289
3 Bar TMAP	- FiTech #38301-4 or Bosch 0281002845

General Specifications:

- Dry flow universal style (Injector-less for port injection systems)
- 1000+CFM airflow rating
- Typical 4150 standard square bore mounting pattern for installation on many intake manifolds
- Sealed Roller Bearings for best performance especially with Blow thru boosted applications
- Common throttle lever with transmission connections for universal fit with most readily available cable brackets.
- Easy swapable main body design used for all offerings (dual bolt pattern sensors, can swap from TMAP to MAP/MAP to TMAP vice versa anytime)
- Four 1.750" diameter throttle blades
- 3.25" overall height (mounting flange to air cleaner mounting flange)
- Larger 5/16"-18 threaded air cleaner mounting for blow-thru boosted applications (adapter for 1/4-20 included)
- Non-progressive (1:1) secondary throttle linkage (has adjustment holes for progressive and soft-progressive conversion)
- Features vacuum ports (hose nipples) consisting of,
 - 2x 3/8" full manifold vacuum ports on rear of unit
 - 2x 3/16" full manifold vacuum ports on rear of unit
 - 1x 3/16" timed spark vacuum port on front of unit
- TPS Sensor, standard GM style TPS 0-5V sensor, Delphi Metri-Pac connection
- 3 bar MAP (30032, 30034 part numbers) or 3 bar TMAP (30034, 30035 part numbers)
- IAC motor, standard GM style. Hi flow passages for best idle control/stability especially with large cubic engines, Metri-Pac connection
- 3/8" NPT Threaded IAT port for use with blow-thru boosted applications
 - Readily available GM LS style IAT sensor (included only on 30032, 30033 part numbers)
 - NPT plug for IAT port on TMAP based part numbers (included only on 30034, 30035 part numbers)
- Supplied with mounting gaskets, air cleaner 5/16"-1/4" adapter, air cleaner stud, air cleaner wingnut and mounted hardware
- Backed by FiTech's 3-year limited warranty

Installation:

These instructions must be read and fully understood before beginning the installation. Failure to follow these instructions may result in poor performance, vehicle damage, personal injury, or death. If these instructions are not fully understood, installation should not be attempted.

The throttle lever arm on this throttle body is designed to directly connect to most throttle cables or linkage. It is also designed to accept connection to most transmissions kickdown/TV cables. Review required throttle lever arm connections prior to installing to ensure all required hardware is available. Due to the vast possibilities and combinations, along with its universal applications, FiTech can not offer all possible options for cable connections so some hardware may be required to be sourced from either the removed throttle body or from your local parts retailer.

1. Disconnect the negative battery cable terminal from the battery.
2. Remove old throttle body from intake if replacing or prepare your new install by installing supplied base gaskets and 5/16 studs.
3. Install the proper throttle and transmission studs in throttle lever arm.
4. Install throttle body onto intake. Depending on exact intake and fuel rails, base spacers and longer mounting studs may be required for throttle lever clearance on some applications
5. Slowly snug down the throttle body stud nuts in evenly in cross pattern. Tighten one diagonal set of bolts to 36 in-lbs. Tighten the other diagonal set of bolts to 36 in-lbs, Finally tighten all four bolts to 75 in-lbs. **DO NOT OVER TIGHTEN AS YOU WILL CRACK/SNAP MOUNTING EAR OFF THROTTLE BODY**
6. Install external throttle return springs that you previously removed from the carburetor or previous throttle body. External springs should be retained/used in addition to the springs on the throttle body. Once throttle body and linkage is securely installed, have an assistant sit in the vehicle drivers seat and fully actuate the throttle pedal. Make the necessary adjustments to the throttle linkage to ensure that the throttle plates are in the most vertical position (Wide Open Throttle) when the throttle pedal is wide open. Adjust spring(s) to achieve a firm pedal that properly returns to the fully closed position. Work the throttle linkage back and forth several times to ensure it operates smoothly with no binding or sticking. Verify the linkage returns to fully closed position. Depending cable/linkage in vehicle, it may be needed to install/remove/adjust external throttle return springs to ensure linkage returns fully closed and offers a comfortably firm pedal for driving.



DANGER! A “sticking” throttle may result in uncontrolled engine or vehicle speed. This could cause property damage, personal injury, or death. A sticking throttle may be caused by improperly installed throttle cable, lack of clearance for any of the throttle linkage, or by a binding vehicle throttle linkage. Check all throttle cable/linkage for proper installation and alignment and actuate the throttle to check for any potential binding or clearance problems. **Immediately** fix/repair any problems before continuing to start engine and drive the vehicle.

7. If the vehicle is equipped with an automatic transmission, ensure that the transmission kickdown is properly adjusted. Follow the vehicle manufacturer’s procedure for the correct adjustment procedure. **NOTE:** On some late model GM and Ford overdrive transmissions with a lockup torque converter, make sure to make adjustments as to properly retain the lockup function. Failure to do so will result in premature transmission/converter failure.
8. Install any necessary vacuum hoses using the appropriate vacuum ports on the throttle body. **NOTE:** Use one of the vacuum ports to run the booster and the timed port for vacuum distributor connection, plug any unused ports with supplied vacuum cap
9. Install the air cleaner mounting stud into the threaded hole on top of your throttle body utilizing the 5/16” to 1/4” adapter if needed. Cutting stud to proper length may be required.
10. Install air filter. Check stud length to air filter hold down needs and hood clearance to insure the stud/wingnut do no contact the hood when closed. Cutting stud to proper length may be required.
11. Before closing the hood, carefully check for proper clearance of the air filter and all components.
12. Reconnect negative battery terminal

3-Year Limited Warranty on FiTech EFI Systems

FiTech extends the following limited warranty to the original purchaser of a FiTech EFI system purchased after November 1, 2022. FiTech warrants its products against defects in materials and workmanship, under normal use and service for 3 years from the date of original purchase. Please note, however, that it does not extend to issues that arise as a result of normal wear and tear. This means that typical degradation from regular use, which can occur over time, is not covered under our warranty terms. This applies only to the original purchaser and the parts must remain installed on the original vehicle for which they were purchased. This warranty is void if the product was improperly installed, was installed on a vehicle for which it was not designed, if it was modified in any manner, or was removed from the original vehicle and reinstalled on another vehicle. Coolant temperature sensors, oxygen sensors, distributor caps, and distributor rotors are not covered under this warranty.

This warranty shall not apply to any product installed improperly, or contrary to FiTech's instructions, altered, misused, repaired or damaged from an accident, collision, or willful or negligent act. To make a claim under the terms of this Warranty, the original purchaser must contact FiTech tech support. If FiTech tech support deems the product in need of warranty service, proof of original purchase will be required. Purchaser must call FiTech Technical Support (951-340-2624) option 2 or email: Techmail@fitechefi.com, to obtain a Returned Material Authorization (RMA). Proof of purchase must clearly show the place of purchase, purchase price, product purchased, and date of purchase. Purchaser needs to register their product here: <https://fitechefi.com/warranty-registration> or using the mail-in registration form found in the product box .

FiTech's 3-Year Limited Warranty does not cover factory refurbished parts, this warranty is only valid for new purchases from an authorized dealer.

FiTech's liability is expressly limited to replacing or repairing the defective part or parts (refunds are not covered under FiTech's 3-year Limited Warranty). FiTech will have no liability for the cost of installation or removal of the defective product or for the cost of labor or any additional parts required to complete the installation of the replacement product. FiTech is not responsible for any shipping charges accrued during the warranty process/claim

In no event will FiTech be liable for any indirect, special, incidental, or consequential losses or damages (including but not limited to interruption of business or loss of business or profit) resulting from the use or inability to use the product, any breach of warranty, or any defect in the product, even if FiTech shall have been advised of the possibility of such potential damages or losses. Some states do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

If the product is in the FiTech facility for repair, the amount of time the product is in repair will be added to the existing warranty period.

In the event that your EFI System that is under warranty is in for repair and FiTech has authorized a replacement, and if that EFI System has been discontinued, FiTech will replace it with a similar product for the same application. The replacement EFI System will maintain the existing warranty period of the original EFI System.

What is not covered under FiTech's 3-Year Limited Warranty:

- Offboard Sensors (oxygen sensors, and temperature sensors, are subjected to a 1-year limited warranty).
- Fuel pumps (Fuel pumps are subjected to a 1-year limited warranty. The customer must send photos of filters used in application. If the filter is completely clogged or contaminated, the fuel pump will not be covered under any FiTech warranty).
- Ignition Cap and Rotor on Go Spark Distributors.
- Normal wear and tear over time
- Fire Damage.
- Cracked footings or flanges on the base of EFI units due to over-tightening or improper installation.
- Removal or replacement costs.
- Shipping costs.
- Damage to related components.
- Costs incurred due to downtime of a vehicle.
- Vehicle transport or storage costs.
- Any product used in marine applications unless specifically stated for marine usage.
- Any product purchased from an unauthorized third party (for example: Amazon, eBay, Craigslist, etc.)



WARNING: This product can expose you to chemicals including Chromium, Lead, Lead Compounds, Nickel (Metallic), Nickel Compounds, Diisonyl and Di(2-ethylhexyl) Phthalates (DEHP)(DINP) which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information, visit www.P65warnings.ca.gov.